Show Designer 2D

Software Revision 1.07

OVERVIEW

The Show Designer 2D is a lighting controller based on the successful and simple to use Show Designer. The Show Designer 2D expands on the existing features and adds several others. The approach of this controller is to try to simplify the programming process as much as possible while still offering a high level of control at a low cost.

48 lighting fixtures of up to 32 channels each can be controlled using 2 DMX 512 outputs. Control of up to 1024 DMX channels is possible. Support of Elation and Robe lighting fixtures as well as other popular brands is included in the setup menu. Lighting fixture profiles can also be downloaded from the Elation web site.

The operating system uses flash memory so that the software can be updated from a computer or the floppy disk drive. Software updates will be made available on the Elation Lighting web site at www.elationprofessional.com .

REAR PANEL

- **Power input** for an external 9V power supply. This requires a transformer with a 9VDC output at 1200ma. The plug polarity is + center with an inside diameter of 2.1 mm.

- **2 DMX 512 outputs** each with a 3 pin and a 5 pin XLR connector. There is a polarity switch for the 3 pin XLR which swaps pins 2 and 3. Some lighting fixtures send data minus on pin 2 and some on pin 3. The more commonly used polarity is data minus on pin 2 (switch is to the right as you're looking at the back of the unit).

- **MIDI in and out -** used for calling scenes in an automated installation.

- **9 pin RS-232 connector -** used for connection to a PC to update the software or backup the memory in units that don't have the disk drive installed.

- **Keyboard –** used to attach a PS2 keyboard for data entry.

- **Audio input -** used for syncing chases to an external audio source. This is a line level input for connection to the line output of a mixing console. Do not connect speaker level signals to this.

- **Disk Drive -** This you to back up the memory, input lighting fixture profiles or update the software using standard 3.5" 1.44 MB floppy disks.

FRONT PANEL

Front panel features include assorted switches for programming, eight 60mm faders for direct control of lighting fixture channels as well as for scene masters, 4 wheels for channel control and data entry, a joystick for pan and tilt control and a backlit display for programming. There is also a 3 pin XLR connector for a work light.

MENU

The menu switch is used to configure the Show Designer 2D for your particular lighting setup. The left and right cursor switches, the + and - switches, and the data input wheels allow you to select settings for the various menus that appear on the display. Pressing the menu switch displays the message “Select a menu item then press enter” on the top line of the display. You will be given a choice of menu items on the bottom line of the display. You can cycle through the choices using the + and - switches or the #1 data wheel. Press “enter” to select the desired menu item. After selecting from the menu, the cursor switches will allow you to select a field on the display to edit and the + and - switches will allow you to change the value in that field. An underline cursor shows the selected field. You can also use one of the four data wheels under any field that you want to change. The wheels don’t require you to select a field with the cursor switches. The “enter” switch must always be pressed following any change to make it permanent. This allows you to look at all of the possible choices first.

Several of the menu items are hidden to prevent unauthorized or accidental changes to the memory. The “memory lock/unlock” function is hidden as well as the “erase all memory” function. These choices can only be selected by pressing and holding down the “add” switch while selecting these last items from the menu list. This is a safety feature for the benefit of installers who wish to protect the memory from unauthorized tampering.

The various menu items are explained in the following paragraphs.

CHOOSE FIXTURES

This allows you to select from a list of lighting fixtures in the fixture library. Use the + or - switch or the #1 data wheel to select the fixture number (from 1 to 48). Select the type of fixture with the #2 data wheel or move the cursor to the fixture type and use the + or - switch. You must press “enter” to record the choice. You can also press “erase” to select “No Fixture” which is one of the fixture choices. If auto patch is enabled, a warning will appear telling you that some DMX start addresses may be changed. Press “yes” to confirm or “no” to exit. After pressing “yes” the message “DONE” will appear for 1 second. If auto patch is enabled, the start addresses of any fixtures above the selected fixture will be adjusted to accommodate the new fixture.

The Show Designer 2D has a built in list of fixtures to choose from. You can also load in “fixture profiles” which contain more detailed information about a particular lighting fixture than what is offered by the built in list. Fixture profiles are small files that can be downloaded from elationlighting.com. They can then be loaded into the Show Designer 2D using the disk drive. You must have the disk drive option installed to load fixture profiles. Read the section on loading fixture profiles for more information.

When selecting fixtures from the “Choose Fixtures” menu, any profiles will be followed by “(profile)” in the display.

PATCH FIXTURES

This menu allows you to turn auto patch on and off and allows you to change the output port and set the DMX starting address for each fixture. Auto patch must be turned off to change the start address or port of any of the fixtures. To turn auto patch on or off, place the cursor under the words “ON” or “OFF” below “AUTO PATCH”, then use the + or - switch to select on or off or use data wheel #4. You must press “enter” for the change to take effect. If you are turning auto patch on, a warning will appear telling you that some DMX starting addresses may change. Press “yes” to proceed or “no” to exit. Auto patch will assign an address to each fixture in ascending order with each DMX address immediately following the last channel of the previous fixture. The first fixture will be assigned to DMX output port 1 at address 1. After 512 channels have been used, DMX output port 2 will be used for any remaining fixtures.

With data wheel #1 you can select from fixtures 1-48 and see the starting address and port for each fixture. You can move the cursor under any of the three digits of the channel number or use data wheel #3 to select a new starting address. If auto patch is on you will not be able to change the address. You must press "enter" to record any change. The message "DONE" will appear for 1 second to confirm.

MULTI FIXTURE

Show Designer 2D supports intelligent lighting fixtures that use as many as 32 DMX channels. Since most fixtures use fewer than 32 channels, Show Designer 2D will allow you to configure a group of fixtures that are of the same type, under a single fixture number. For example if you have selected a 4 channel scanner for fixture number 1, you can set "multi" to 8. When fixture 1 is selected you will be able to use all 32 channels available to fixture 1 to control 8 of these scanners.

NOTE: This feature is for controlling large numbers of small 1, 2, 3 or 4 channel fixtures. This keeps you from wasting the 48 fixture numbers on a bunch of small fixtures.

You will be able to control the individual channels of each fixture separately using the 4 banks of 8 faders. When using the joystick, all of the multi fixtures within that fixture number will respond if they have a pan and tilt feature. To control individual pan and tilt levels separately you will have to use the faders.

To program the multi fixtures, move the cursor to the fixture number and use the + and - switches or data wheel #1 to select a fixture number. Move the cursor to the multi number or use data wheel #2 to increment or decrement this value. You can only choose numbers between 1 and the maximum number of fixtures that will fit into 32 channels. If it is a 4 channel fixture the multi value can be no higher than 8. You must press "enter" to record the change. If auto patch is enabled you will be given the warning that some addresses may change. Press "yes" to continue or "no" to exit.

MODIFY FIXTURE

This allows you modify the channel attributes of a fixture. You can also use this to create a new fixture that isn't in the library. To do this you must first select a fixture as described above in the "Choose Fixture" section. When trying to create a new fixture, choose something that is similar to the one you are trying to create or start with the "Generic Dimmer" which is the first choice from the list. You can later use the "Copy Fixture" feature as described in the next section to duplicate the new fixture.

There are nine fixture attributes that can be modified. The attributes are: fixture name, number of channels, black channel, black value, pan channel, pan fine channel, tilt channel, tilt fine channel and crossfade mode. After you have entered the "Modify Fixture" menu, use the cursor switches to move the underline cursor to the fixture number or use data wheel #1 to select the fixture you want to modify. Next move the cursor to the "attribute" which is displayed immediately to the right or use data wheel #2 to select from the nine fixture attributes. Next move the cursor to the "value" line of the display or use data wheel #3 to select the value for the attribute you are changing. You must always press "enter" to record the changes you make to any attribute. The message "DONE" will appear in the display when the change has been recorded. The fixture attributes are described in the following paragraphs.

NAME is the fixture name that appears whenever you select or deselect a fixture. You may want to modify this attribute on all of your fixtures to show fixture purpose or location. You must place the underline cursor on the character you want to edit or you can use an external keyboard to enter the fixture name.

CHANNELS is the total number of channels for the fixture. This can be any number from 1 to 32. When you change the number of channels be aware that other things such as fixture addresses and number of multi fixtures can be automatically changed if you drastically change the number of channels for a fixture that has already been set up and is in use. Fixture attributes such as black channel, pan or tilt will also be automatically disabled if you select a number that is smaller than the channel numbers that are already

assigned to those attributes. For example if you already assigned pan to channel 8 and you reduce the total number of channels for the fixture to 4, pan will automatically be set to "none". Likewise if you increase the number of channels from 8 to 9 and you had previously set up 4 multi fixtures using all 32 channels, the multi fixture setting will automatically be reset back to 1.

BLACK CHANNEL is the channel that will be affected when the "black" switch is pressed. You can choose any available fixture channel as well as "ALL" which will force all channels to the selected black value.

BLACK VALUE is the DMX value that will be sent to the selected black channel(s). This will accommodate fixtures that use the gobo wheel for blackout and that use a value other than 0 to set the gobo wheel to black. You may also want to blackout all channels to a value other than 0 since this is used as a reset by some fixtures. For some fixtures a value of 1 achieves the same result as a value of 0 for blackout.

PAN CHANNEL is the channel used by the fixture for pan. This can also be set to "none" if the fixture does not have a pan feature. This is also the pan coarse channel or pan high byte channel for those fixtures that use two channels to control pan. This directs the joystick output as well as other pan functions.

PAN FINE is for fixtures that use two channels to control pan. This is also referred to sometimes as the pan "low byte" channel. Set this to "none" if the fixture uses only one channel for pan. The joystick will control this channel with "fine" mode turned on.

TILT CHANNEL is the same as described above for pan channel except that it controls tilt.

TILT FINE is the same as described above for pan fine except that it controls tilt.

FADE MODE is used to set the crossfade method for each of the fixture's channels. Use the + and - switches or data wheel #2 to select the channel desired. Once the channel is selected move the cursor to the value or use data wheel #3 to select the crossfade mode. The choices are "crossfade", "snap before fade" and "snap after fade". You must press "enter" after each channel has been programmed.

"Crossfade" will cause a channel to smoothly fade from one scene to another when changing scenes. The crossfade time will vary from scene to scene depending on how that scene was programmed. Use this setting for channels that control functions like pan and tilt or dimming to achieve a smooth transition from scene to scene. If you use this setting for gobo or color wheel channels, this will cause the wheels to step through all positions between the start and end positions of a long fade. This is usually the default setting for pan, tilt and dimmer channels.

"Snap before fade" will cause the channel to jump immediately to the next scene level as soon as the new scene is called. Use this setting for channels that control motor speed so that pan and tilt will move at the correct speed during the fade. You can also use this setting for wheel channels that you want to change at the start of long crossfades. This is usually the default setting for speed and mode channels.

"Snap after fade" will cause the channel to jump immediately to the next scene level at the end of a crossfade. Use this setting for wheels and effects that you want to take effect after a long crossfade is complete. This is usually the default setting for color and effects wheels.

COPY FIXTURE

This is used to copy the fixture type from one fixture number to another. Also when setting up a group of fixtures that are all the same type, this feature saves time by letting you copy the fixture choice rather than searching through the list for each fixture. Use the + and - switches or data wheels #1 and #2 to select a fixture number to copy from and to. You must press "enter" to complete the copy process. If auto patch

is enabled you will be given the warning that some addresses may change. Press “yes” to continue or “no” to exit. If a fixture is already set up at the “copy to” location, you will be asked if you want to copy over the existing fixture. Press “yes” to copy over it or “no” to exit.

PAN AND TILT INVERT

The joystick can be used to control pan and tilt if a fixture has this feature. Sometimes a fixture is oriented in a way so that its pan or tilt movement is opposite that of the joystick movement. You can use this to invert the direction of the pan or tilt for each fixture. This setting will not affect the faders or the wheels when they are used to control pan or tilt. With this menu displayed, use the + and - switches or data wheel #1 to select the fixture then use data wheels #2 or #3 to set the invert states for pan or for tilt. You must then press, “enter” to save the selection.

SET MIDI CHANNEL

This allows you to select the MIDI channel that Show Designer 2D will send and receive on. Select from 1-16 using the + or – switches or use data wheel #1 then press, “enter”. Read the section on MIDI for more info.

VIEW MEMORY SIZE

This allows you to see how much memory is left for scenes and shows. It is displayed in kilobytes remaining. Memory usage varies depending on the size and complexity of the scenes.

SAVE MEMORY FILE

This allows you to back up the memory on a floppy disk or to a PC using the RS-232 port if the disk drive option is not installed. When there is no disk drive installed, pressing “enter” starts the data transmission. The contents of the memory are encoded in text format and can be recorded by a PC connected to the RS-232 port. Read the section at the end of this manual on using the computer port for more information on how to back up the memory this way.

If the disk drive option is installed, the message “Press enter to save file to disk” will appear on the top line of the display. The default file name will appear on the bottom line. You can use the data wheel or an external keyboard to enter a new file name. Insert a formatted disk in the drive and press enter. The message “File has been saved to disk” will appear when finished. The content of the entire memory is backed up including all menu settings, scenes, presets, chases and shows. The disk file is a binary file with the file extension .sdm and is compatible with Windows as long as you adhere to Window’s file naming rules. The file name can use up to 8 characters. You do not need to add the extension when typing in the file name. Read the section at the end of this manual on using the disk drive for more information.

LOAD MEMORY FILE

This allows you to restore the memory from a backup that was made using the RS-232 port and a PC or the disk drive if installed. If no disk drive is installed, pressing “enter” configures the RS-232 port for memory read and waits for the file to be sent from a PC. Read the section at the end of this manual on using the computer port for details on how to back up and restore the memory this way. The only way to exit this menu is to turn the power off.

After pressing, “enter” the message “Select memory file, then press enter” will appear on the top line of the display if you have the disk drive option installed. The name of the first Show Designer 2D memory file on the disk will appear on the bottom line of the display. Use the + or - switch or data wheel 1 to select the desired file. Press “enter” to load the file. **Warning: the current memory will be overwritten.** Read the section at the end of this manual on using the disk drive for more information.

LOAD FIXTURE PROFILE

This allows you to load fixture profiles into the Show Designer 2D from the disk drive. Fixture profiles are small files that are available from elationlighting.com that contain detailed information about a lighting fixture such as the name and function of each of the channels as well as the name and DMX values of steps within a channel. Once loaded, a profile can be selected from the fixture list when choosing fixtures. Fixture profiles are most useful when using the data wheels to program lighting fixture channels. The display will be able to show the function and current setting for a channel. The wheels will be able to select from preprogrammed steps within a channel such as the colors on a color wheel.

When this menu item is selected the message "Select fixture file, then press enter" will appear on the top line of the display. The bottom line will show the first fixture profile found on the disk, use the + or – switch or data wheel 1 to select a profile (if there is more that one profile on the disk) then press "enter". The profile will be loaded into memory and can then be selected using the "choose fixtures" menu. Up to 256 fixture profiles can be loaded into memory.

REMOVE FIXTURE PROFILE

This allows you to remove individual profiles from memory in order to free up memory space. When you enter this menu the message "Select profile to remove, press enter" will appear on the top line of the display. The first profile found in memory will appear on the bottom line, use the + or – switch or data wheel 1 to select from the list of profiles. Press, "enter" to remove that profile.

UPDATE SOFTWARE

This allows you to update the software inside Show Designer 2D from a computer connected to the RS-232 port or from the disk drive if installed. When there is no disk drive, the message "DOWNLOAD NEW PROGRAM" will appear when you press "enter". Show Designer 2D will wait for the proper file to be sent from a PC to the RS-232 port. The message "RECEIVING NEW PROGRAM" will appear as the computer sends the new software file. Upon completion, the system will reboot. The only way to exit this menu is to turn the power off. You can also call this menu on power up by pressing and holding "menu" and "erase" together while turning on the power. Refer to the section titled "Using the Computer Port" at the end of this manual for more details on how to do this.

If there is a disk drive installed you must use a disk containing the proper software file to do the update. Read the section at the end of this manual on using the disk drive for more information.

All software updates will be made available from the factory website.

LOCK/UNLOCK MEMORY

This is one of the hidden menu items that can only be selected while holding the "add" switch when cycling through the menu selections.

This feature allows you to lock the memory to prevent someone from changing or erasing anything that has been recorded. The message "MEMORY LOCKED, CAN'T RECORD" will appear if the memory is locked and anyone presses the record switch. All other menu items that are not hidden will also be locked out in order to protect the memory.

To lock or unlock the memory, use the + and - switches or data wheel #1 to select the desired state, then press "enter".

ERASE ALL MEMORY

This is another one of the hidden menu items that can only be selected while holding the "add" switch when cycling through the menu selections.

This menu item allows you to clear the entire memory of Show Designer 2D. This does not erase the software that runs the system but erases all of the scene, preset, chase and show data as well as the system parameters such as fixture assignments. The message “ARE YOU SURE? HOLD “YES” 5 SEC” will appear in the display. Press and hold “yes” until the system reboots or press “no” to exit.

SWITCH AND CONTROL DESCRIPTIONS

The following paragraphs outline the various switches and controls with their functions.

NUMBER SWITCHES 1-48

The large group of switches on the left side of the panel that are numbered 1-48 are multi-purpose. The function switches that are just above these determine their purpose. Only one function is selected at a time and the LED for the particular function will be lit when selected. The following is a description of each function.

FIXTURE

This switch allows you to select fixtures for programming. With the “fixture” switch LED lit, the number switches 1-48 are used to select an active fixture. When a fixture is selected it can be directly controlled using the faders, the wheels or the joystick. A selected fixture can also be controlled using a preset. A fixture does not have to be selected in order to be controlled by scenes or shows. If a fixture is not selected it will only be disconnected from the manual controls, the fixture is not turned off.

Fixtures are selected one at a time unless the “add” switch is held while selecting. If no fixture type has been assigned to a fixture number, it cannot be selected.

When a fixture is selected its name will appear in the LCD followed by the first 4 channels of the fixture along with the current values of those channels. The four data wheels can then be used to adjust the levels for each channel. Pressing the “fixture” switch at any time will enable the channel wheel display and the channel wheels. If a fixture profile is installed for this fixture the display will show the names of the channels as well as the current channel values as defined by the fixture profile.

FIXTURE GROUP

The fixture group switch allows you to define and select combinations of fixtures. To create a fixture group press “record” then “fixture group”, both LEDs will flash. Next press “fixture” to select which fixtures will be included in the group. Use the number switches to turn the desired fixture LEDs on or off. Next press the “fixture” switch again to turn off its LED. If you want to name the group, use the cursor switches to place the underline cursor under the character of the name and use the data wheel to select characters or use the external keyboard. Finally select the group number by pressing one of the number switches from 1-48. If a switch LED is already lit it means that a group is already recorded there. After you are finished recording, press “record” to exit.

Fixture groups are selected by pressing “fixture group” then selecting the desired group from 1-48. If you want to turn on more than one group you must hold down the “add” switch while selecting.

To edit a fixture group, first select the group then press “record” and proceed as described in the preceding paragraphs. Make any changes to the group then resave it.

DATA WHEELS

The data wheels are used to increment or decrement the values in the display fields directly above each wheel. They are used for adjusting the channel values of the lighting fixtures as well as for general-purpose programming. Pressing “fixture” will bring up the channel control display if there are any fixtures currently selected. From the channel control display you can access all of the channels of the selected fixture using the left and right arrow switches which are above the display. Pressing the left switch again after the lowest channel number is displayed will show the selected fixture number and its name. Because only one fixture can be displayed at a time, the last selected fixture is the one displayed if more than one fixture is active. If a “fixture group” is selected, the lowest numbered fixture is the one that is displayed.

NOTE: When more that one fixture is selected, all fixtures **of the same type** that are selected will be set to the level on the display whenever a wheel is moved.

Show Designer 2D will display the channel functions for some fixtures. Not all fixtures are supported by this feature and will only display the channel numbers when selected. If a profile is installed for a fixture, certain channels will also display current functional settings such as color names.

CHANNEL FADERS

Just below the number switches are 8 faders that can be used to control the individual channels within each fixture. You can address up to 32 channels per fixture by using 4 banks of 8 faders. The bank switch to the left of the faders is used to select which bank of 8 channels is currently active. The LED to the left of the faders shows the current bank. The channel numbers controlled by the faders are printed to the left of each fader. For example the first fader can control channels 1, 9, 17 or 25 depending on which bank is selected. If a fixture has less than 32 channels then some banks and some faders will not be used. Before the channel faders can control a fixture, that fixture must be selected. Any number of fixtures can be controlled at once. If for example all fixtures are enabled, moving fader 1 with bank 1 selected will change channel 1 on every fixture.

If you are using the “multi fixture” feature of Show Designer 2D, the channel faders can be used to control each channel of every fixture within the multi fixture group. If for example you have programmed 8 fixtures having 4 channels each, faders 1-4 will control the first fixture of the multi fixture group, faders 5-8 the second and so on.

BANK SWITCH

The bank switch selects the current bank of channels controlled by the 8 faders. This allows you to control up to 32 channels per fixture (or 32 scenes when in scene master mode) using only 8 faders. The bank LED next to the faders will show the currently selected bank and the numbers printed next to each fader show the channel number or scene number of the fader for the selected bank. As a convenience the bank select will only go as high as needed for the size of the currently selected fixtures.

JOYSTICK

The joystick controls pan and tilt on all selected fixtures that have a pan or tilt feature. The joystick is the “return to center” type so it operates by moving it in the desired direction. The greater the joystick movement the faster the pan or tilt movement will be. The state of the “fine” mode switch also determines the speed of the pan or tilt movement. If a fixture uses 2 channels for pan or tilt (16 bit), the joystick will affect the fine channel with “fine” mode on. If the fixture only uses 1 channel for pan or tilt, the movement will be slower allowing more precise control with “fine” mode on.

FINE SWITCH

The “fine” switch affects the way the joystick and the data wheels operate. With “fine” mode on, they will increment or decrement by the smallest possible amount. With “fine” mode off, they will increment

or decrement by larger amounts. If a fixture profile is installed, selecting fine mode will switch the channel wheel display to number values for channels instead of name values such as color names.

BLACK SWITCH

Pressing the "black" switch will stop all activity and blackout all fixtures. Depending on the type of fixture and its capabilities, black will only turn off the channel that controls the output of the lamp but for some types of fixtures will set all channels to 0. The "black" LED will remain on to indicate that a blackout was called. Pressing the "black" switch a second time will turn the LED off and restore the blacked out channels to their previous settings.

Pressing and holding the "black" switch for 2 seconds will force all DMX channels to 0 and clear the scene buffer. This function is useful when programming a new scene.

SCENES

RECORDING SCENES

A "scene" is a recording of the state of the entire stage. Show Designer 2D keeps track of all the actions you perform to make the stage appear as it does. All of the actions that affect the look of the stage such as changing channel levels, calling a chase or calling a preset, are saved in the scene buffer so that you can later record these actions as a scene. This method of programming also allows you to recall a recorded scene, modify it and then resave it as a new scene or resave it to the same location allowing quick edits.

Once you have a look on stage that you want to save as a scene, press "record", its LED will flash. Next press "scene", its LED will also flash. The page display will light and any number locations that already contain scenes will also light. You can at this time enter a name for the scene as well as a crossfade time. Use the cursor switches to move the cursor under each character of the name, then use the + or - switch or data wheel #1 or #2 to modify the name characters. You can also use an external keyboard to enter the scene name. Move the cursor under the fade time or use data wheel #3 to change the crossfade time for this scene.

To record the scene, select the page and scene number. You can use the page switches to select from pages 1 to 99 and the number switches from 1 to 48 allowing you to store up to 4752 scenes. If you select a scene number that is already lit, a message will appear asking if you want to write over the existing scene. Press "yes" or "no".

Note: It can take up to 30 seconds to overwrite or erase a scene depending on how much of the memory is currently filled.

If at any time you wish to exit record mode without recording anything, press the "record" switch and you will exit record mode.

RECALLING SCENES

Once a scene is recorded, turning on the "scene" LED and then selecting the desired page and scene number can play it back. Only one scene can be selected at a time using the number switches. Pressing the scene number switch that is currently lit will turn that scene off by calling a blackout.

Note: To run multiple scenes at one time you can use the faders in scene master mode.

ERASE SCENE

To erase a scene from the memory, press “record” then “scene” then “erase”. As when recording a scene, all number LEDs that contain a scene will light. Next select the scene number to erase. That scene name will appear in the LCD along with the message “Erase this scene?”. Press “yes” or “no”. If you press “yes” the scene will be erased. You can then select additional scenes to be erased or you can press “record” to exit record mode.

Note: It can take up to 30 seconds to overwrite or erase a scene depending on how much of the memory is currently filled.

PRESETS

A preset contains channel settings for a selection or group of fixtures. Presets provide fast and easy programming of scenes by giving you instant access to colors and beam settings without searching through channel levels with the faders or data wheels. Presets also save memory because many scenes can reference the same preset. For example, if a preset defines a pan and tilt location for several scenes, only the preset needs to be edited in order to modify the pan and tilt for all of those scenes. If you want to use the same color or gobo for a group of fixtures, use a preset instead of setting the channels for each individual fixture with the wheels or faders. This will save memory within a scene.

Show Designer 2D allows you to record up to 24 pages of 48 presets for a total of 1152 presets. For your convenience the words “color”, “gobo”, “focus” and “effect” are printed next to the 4 rows of number switches. These types of presets can then be recorded on the corresponding rows if desired. Unlike scenes, which record the look of the entire stage, presets are used to record only several channels worth of information. This allows you to record things like color or gobo or beam position only. Presets can then be recalled and layered to make a scene.

In addition to the 24 pages available for the presets that you create, there are 4 pages labeled “F1” through “F4”. These pages are for “factory presets”. These are presets that are already programmed for you when you install a fixture profile. They typically control colors, gobos and effects and their preset numbers match the row labels along the left side of the number switches. Refer to the sections on fixture profiles for more information on how to install and use profiles.

RECORDING PRESETS

Before recording a preset you must first do some preparation. In order to be able to view certain channels like color or gobo you will first need to set dimmer levels and the pan or tilt positions in order to see the color or gobo selection. Do this by selecting the fixture or fixtures to be used in the preset and then position the beams and turn up the dimmer levels. These things will not be recorded into the preset if they are done before pressing “record”.

To start recording a preset press “record”, its LED will flash. Next press “preset”, this LED will also flash. The page display will show the current page and any number locations that already contain presets will be lit. Adjust the channel or channels that you want to include in the preset. These adjustments will be recorded into the preset so take care not to change any channels that you don’t want included.

Note: When recalling a preset, if some channels are affected that weren’t intended as part of the preset, chances are that a fader or the joystick was bumped and those channels were accidentally added to the preset being recorded. If this happens, go back and rerecord the preset.

If while recording a preset you need to turn a fixture on or off or would like to see the current channel levels, press the “fixture” switch. Use the number switches to toggle any fixtures on or off. Pressing “fixture” a second time will turn off the fixture LED allowing you to finish recording the preset.

At any time while recording the preset you can enter a name for the preset. Use the cursor switches to move the cursor in the display under each character then use the + or - switch or the data wheel to select characters. You can also use an external keyboard to enter the name characters.

To save the preset, select the page and number where you want to store it. If you select a number that is already lit, a message will appear asking if you want to write over the existing preset. Press “yes” or “no”. You can use the page switches to select from pages 1 to 24 which will allow you to store up to 1152 presets. You cannot record over or edit the factory presets on pages F1 through F4.

Note: It can take up to 30 seconds to overwrite or erase a preset depending on how much of the memory is currently filled.

After saving a preset, record mode stays on allowing you to continue to record more presets. Any channel changes that were made since starting the record process will be included in any new presets. To start a new preset from scratch, toggle the “preset” LED off and then back on while the “record” LED is still flashing.

To exit record mode, press “record”, all LEDs will stop flashing.

RECALLING PRESETS

To play back a preset, first select the fixtures that you want to control with the preset. The fixtures must have been included in the recording of the preset to be affected. Next, press the “preset” switch, select the page of the desired preset then use the number switches to select from the presets on that page. Unlike scenes, you can have several presets on at the same time as long as each preset is controlling different channels or fixtures. If two different presets are trying to control the same channel, the last preset that was selected will have control of the channel. If a preset has been completely overridden by another, it will be automatically switched off.

A fixture must first be selected before the preset is turned on even if it that fixture was included in the preset when it was recorded. This allows you to put all fixtures into a preset but use only selected ones as needed. For example you could create a preset called “Red” that sets all color channels of every fixture to the color red. Then you can select the fixtures you want to be red then call the “Red” preset changing only those fixtures.

ERASING PRESETS

To erase an existing preset, press “record” then “preset” then “erase”. As when recording a preset, all LEDs that contain a preset will light. Next select the preset to erase. That preset name will appear in the display. The message “Erase this Preset?” will also appear along with the preset name. Press “yes” or “no”. If you press “yes” the preset will be erased. You can then select additional presets to be erased or you can press “record” again to exit record mode.

Note: It can take up to 30 seconds to overwrite or erase a preset depending on how much of the memory is currently filled.

EDITING PRESETS

To edit a preset that has already been recorded, press “record” followed by “preset”. Before making any channel changes, press the preset number of the one you want to edit. The message “Edit this existing Preset?” will appear in the display. Press “yes” and the preset will be called up and you can add to it or

modify it by changing any channel levels. After making changes you can store it at the same or at a new location by pressing any preset number. You can also use this method to copy a preset to another location by saving it without making any changes.

COMBINING PRESETS

You can add existing presets to any preset you are currently working on. While in preset record mode press the "add" switch followed by any preset number that has something recorded on it. The channel settings will be added to the preset you are currently recording. You can add as many presets as you wish. You can use this to mix several smaller presets into a single larger one. If two presets control the same channels, the channel levels from the last one added will have precedence.

CHASES

Show Designer 2D allows you to record up to 1152 chases and also provides 48 pre-recorded chases referred to as "factory chases". A chase is a sequence of steps, creating motion or quick repetitive changes on stage. Each chase step is a recording of selected channel levels and or presets. The steps are then played back in a continuous loop at a preprogrammed chase speed.

Unlike scenes, chases do not affect the entire stage but only the channels that you include in the chase. This allows you to chase things such as colors, gobos or beam positions. You can run as many as 8 chases at the same time allowing you to combine them into one scene.

RECORDING CHASES

Before recording a chase you must first do some preparation. In order to be able to view features such as colors or gobos or to be able to see beam positions for moving lights, you will first need to set some channel levels. Do this by selecting the fixture or fixtures to be used and then turn up the dimmer levels or open the apertures as needed. These channel changes will not be part of the chase if they are done before recording.

To start recording a chase press "record", its LED will flash. Next press "chase", the chase LED will also flash. The page display will show the current chase page and any number LEDs that already contain chases will be lit. There are 24 pages of memory locations available. Page "FC" is reserved for factory chases and can't be recorded on. The display will show the current chase step, speed, fade and speed lock status. To start recording the first chase step, move the channel or channels to the desired positions by either adjusting the faders or by using the joystick. If you want to use the data wheels to adjust channel levels, press "fixture". These adjustments will be recorded into the step so take care not to move any channels that you don't want included in the chase. You can at any time press the fixture switch and turn fixtures on or off while recording the chase step. You can also press the preset switch allowing you to include presets in the chase step. When using presets, only the fixtures that are currently selected will be included.

After you have finished adding channels or presets to the step, press "enter". **Note:** (The "fixture" LED must be turned off before pressing "enter".) The step indicator on the display will automatically increment to the next step. Repeat the previous actions to record up to 256 steps. You can enter empty steps as well by pressing "enter" before changing any channels. These empty steps can be used to lengthen the time between steps. You can record something into these empty steps later if desired.

As you are recording steps you can at any time move from step to step by putting the display cursor under the step number and use the + or - switches or use data wheel #1 to select a new step. You can change or add more channels to each recorded step this way.

Pressing “enter” when at the last recorded step of the chase will always add an additional step to the end. If you press “enter” while the step number is at a lower step you will advance to the next step number, the same as when you increment data wheel #1.

If you make a mistake while recording a chase step, press “erase” and you will be prompted whether or not to erase the contents of the chase step. Press “yes” to clear the step of all channel and preset data. If you press “erase” a second time, you will be prompted whether or not to remove the empty step from the chase. This will shorten the chase by one step.

At any time while recording the chase you can enter a speed value, a fade value and a name for the chase. Use the cursor switches to move the cursor on the display under the item to be changed then use the + or - switch or a data wheel to modify it. To get to the name, continue to move the cursor to the right, past the speed lock setting and the screen will change to show the name. To edit the name, move the cursor under each character then use the + and - switches or the data wheel to select the letters. You can also use an external keyboard to enter the name characters.

The chase speed selected will be the default speed for the entire chase. This means that when you first call the chase this is the speed that it will run at. You can change the speed while it is running and the new speed can be recorded as part of a scene. This allows you to use the same chase in several scenes but at different speeds if desired for each of those scenes.

The fade value is displayed as a percentage and is the same for every step in the chase. You cannot set a separate fade time for each step. This will be the amount of fade time between steps. If set it to 100% the crossfade time will be equal to the time between each step giving a smooth continuous motion between steps. If the fade time is set to 0% the steps will be called with no fade in between. Any settings between 0% and 100% will give varying amounts of fade time depending on the speed of the chase. As with speed, this is only the default value. It can be changed before adding the chase to a scene.

The speed lock and unlock feature allows you to tell the chase whether or not to ignore the audio or beat switches when the chase is running. When set to “No Beat” the chase will only run at the programmed speed and will not be affected by the beat or audio switches. This is useful when you have a chase that must always run at a high speed to create a certain effect.

After you have finished recording all of the steps for a chase, set the speed, fade and lock status, then save the chase by selecting a page and number. The “fixture” and “preset” LEDs must be off. If you select a chase number that is already lit, a message will appear asking if you want to write over the existing chase. Press “yes” or “no”. You can use the page switches to select from pages 1 to 24 which will allow you to store up to 1152 chases. Page “FC” is reserved for factory chases.

Note: It can take up to 30 seconds to overwrite or erase a chase depending on how much of the memory is currently filled.

After you have saved the chase, the “record” and “chase” LEDs will continue to flash, allowing you to continue to add to or edit the chase. To exit record mode, press “record” and the LEDs will stop flashing.

RECALLING CHASES

To run a chase, press the “chase” switch, and then press the desired page and number switch. The chase will begin to run at the speed that was selected when it was recorded. Pressing the same switch again will turn the chase off. You can run more than one chase (up to 8) as long as they are chasing different channels.

You can use data wheel #3 to adjust the speed and data wheel #4 to adjust the fade rate of any running chase that is currently shown in the display. Use data wheel #1 to select between chases if more than one

chase is running. Any speed changes that are made will be saved if you record the current scene. This allows you to reuse the same chase in different scenes at different speeds. Press the “chase” switch whenever you want to see the chase display when there are chases running.

You can run up to 8 chases simultaneously. If a new chase is selected that completely overrides one that is running, the overridden chase will be automatically turned off. A chase is canceled when another one is called that controls all of the same channels. A chase will not be canceled if only some of its channels are overridden. The channels that are still available will continue to chase.

ERASING CHASES

To erase an existing chase from the memory, press “record” then “chase” then “erase”. As when recording a chase, all LEDs that contain a chase will be lit. Next select the chase to erase. The message “Erase this Chase?” along with the chase name will appear in the LCD. Press “yes” or “no”. If you press “yes” the chase will be erased. This only works when there is no chase being edited or recorded. While editing a chase, “erase” is used to erase the chase steps. You can abort chase erase at any time by either pressing “no” or exiting record mode by pressing the “record” switch.

Note: It can take up to 30 seconds to overwrite or erase a chase depending on how much of the memory is currently filled.

EDITING CHASES

To edit a chase that has already been recorded, press “record” followed by “chase”. Before making any channel changes, press the number of the chase that you want to edit. The message “Edit this existing Chase?” will appear in the display. Press “yes” and the chase will be called up and you can add to it or modify it by selecting steps and changing any channel levels. You can also use the “erase” switch to remove the contents of the current step or if the step is empty, remove the step entirely. You can also insert additional empty steps at the current step by pressing “add”. You will be prompted whether or not to add an empty chase step here. Press “yes” to insert a step at the current step number. All following chase steps will be moved up one number. Once the new step is added you can record channel levels or presets there.

After you have finished editing the chase you can store it at the same memory location or at a new location by selecting a page and by pressing a number switch. You can also use this method to copy a chase to another location by saving it without making any changes.

FACTORY CHASES

When you select chase memory page “FC” (factory chase) you can call from the list of 48 preprogrammed pan and tilt chases. Some hard to program movements such as circles and figure eights can be found here. Unlike chases that you program yourself, you must first select the fixtures you want to include before you turn on the chase.

AUDIO SWITCH

The audio switch enables the audio input as a trigger for chase steps. Pressing the “audio” switch turns on its LED. It will flash off briefly whenever an audio beat is detected at the audio input. Any chases that are running will sync to this beat unless the speed has been locked for that chase. Read the previous section on recording chases regarding how to lock the chase speed. Turning on “audio” will automatically turn off “beat”. The audio switch state is not stored with a scene.

BEAT SWITCH

The beat switch allows you to override the tempo or beat of a chase by tapping on the switch in time to any music that is playing. The LED will flash in time to the beat that is tapped in. Any chases that are running

will sync to this beat unless the speed has been locked for that chase. Read the previous section on recording chases regarding how to lock the chase speed. Pressing the “beat” switch will automatically turn off “audio”. To turn off the beat, press and hold the “beat” switch for one second. The “beat” switch state and beat tempo are not stored when recording a scene.

SHOWS

A show is a sequence of scenes that are recorded and played back in order at preprogrammed times. Show Designer 2D lets you record up to 24 pages of 48 shows for a total of 1152 shows.

RECORDING SHOWS

Before recording a Show you must first record the scenes that will be included in the show. Consult the previous sections on how to do this.

To start recording a show press “record”, the “record” LED will flash. Next press “show”, the “show” LED will also flash. The page number will display the current Show page and any locations that already contain Shows will be lit.

The display will show the current step that is ready to be recorded along with the scene page and scene number in that step. The word “Empty” will appear in place of the scene page and number if there is nothing recorded at this step. The hold time for the step is displayed in minutes and seconds. The minutes and seconds are separated by colons “:” with seconds having a decimal point allowing tenths of a second resolution.

When you first start the record process, step 000, scene “Start” will be displayed. Step 0 is used to add a delay to the start of a timed show before the first scene is called. No scene can be recorded at step 0. If you don’t want a delay time at the start of the show, leave the hold time as 00:00.0 and move on to step 1 by pressing the “+” switch, the “enter” switch or by incrementing data wheel #1.

To record a show step, press the “scene” switch, the “scene” LED will be lit. Next, choose a scene for this step by selecting the page and pressing the desired scene number. Next, select the hold time for this step if you plan to have the show run by it self. If you plan to step the show manually, you do not need to enter a hold time. The time that you select is the time that this scene will be held until the next step is called. You can select a new time by moving the cursor to the minute or second number then press the + or - switch or use data wheel #3 to change the time.

Once a scene has been selected and the hold time set, press “enter”. The step number will automatically advance to the next step. You can enter up to 255 steps in the show. If you press “enter” without selecting a scene, the step number will advance leaving the step empty.

As you are recording a show you can select any step by moving the cursor under the step number and using the + or - switch or data wheel #1 to select a new step. You can edit the scene number or hold time for any recorded step this way. Pressing “enter” when on the last recorded step will add an additional step to the end of the show. If you press “enter” while the step number is not at the end you will advance to the next step number the same as if you incremented the step number using the data wheel.

At any time while recording the show you can set the loop status, enter a name for the show or set the show to manual mode. To enter the name or set manual mode, use the right cursor switch to move the cursor on the display to the right, continuing past the “loop” status. The screen will change showing the show name and manual mode status. Edit the name by putting the cursor under each character then use the

+ or - switch or data wheel #1 to change the character. You can also use an external keyboard to enter the name characters.

Set the manual mode status to “on” if you want to call the show steps using the “go” switch instead of the automatic timer.

Set the loop status to “on” to program the show to loop continuously or set it to “off” for the show to play once through and stop.

After you have finished recording the steps and setting the show attributes, save the show by selecting a page and number where you want to store it. Make sure that the “scene” LED is off. If you select a show number that is already lit, a message will appear asking if you want to write over the existing show. Press “yes” or “no”.

Note: It can take up to 30 seconds to overwrite or erase a show depending on how much of the memory is currently filled.

After you have saved the show, Show Designer 2 remains in record mode allowing you to continue to edit the show. To exit record mode, press “record”, the LEDs will stop flashing.

RECALLING SHOWS

To run a show, press the “show” switch, and then select the desired page and number switch. You can only run one show at a time and shows can only call one scene at a time. The page, show number and name of the show will be displayed along with the current step, the current scene and hold time. If the show is set to run in manual mode, the hold time will display “manual”. If the show is set to loop, it will restart after the last step hold time has counted down or after you press “go” following the last step. If loop is set to “off”, the show will end after the last scene has been called.

Press the “black” switch to pause a show and to black out the fixtures. Press “black” again to resume the show and turn the fixtures back on. If you press black and hold it for 1 second the show will be turned off. If you press the number switch of the show that is currently running the show will be turned off. If you select a new show while one is running it will replace the current show. If you select a new scene while a show is running it will also turn off the show. If at any time you need to see the show display for a show that is running you can restore it by pressing the “show” switch.

If you are using the timer to run the show, press the left arrow switch to pause then press the right arrow switch to continue. Press the right arrow switch to advance a show to the next step if it is not paused. Press the “go” switch to call the next show step. You can do this even when not in manual mode. This gives you the option of running the show manually by turning of the clock with the left arrow switch and then manually stepping the show with the “go” switch. You can turn the clock back on at any time by pressing the right arrow switch. If the show was recorded for manual mode the clock cannot be turned on.

ERASING SHOWS

To erase an existing show, press “record” then “show” then “erase”. As when recording a show, all LEDs that contain a show will be lit. Next select the show to erase. That show name will appear in the LCD. The message “Erase this Show?” will also appear. Press “yes” or “no”. If you press “yes” the show will be erased. Erase show only works when there is no show currently being edited. While editing a show, “erase” is used to erase show steps. You can abort show erase at any time by either pressing “no” or by exiting record mode by pressing the “record” switch.

Note: It can take up to 30 seconds to overwrite or erase a show depending on how much of the memory is currently filled.

EDITING SHOWS

To edit a show that has already been recorded, press "record" followed by "show". Instead of entering steps for a new show, press the show number of the one you want to edit. The message "Edit this existing Show?" will appear in the display. Press "yes" and the show will be called up and you can add to it or modify it by selecting steps and changing any value. You can use the erase switch to remove a step. You can also insert additional steps by pressing "add". You will be prompted whether or not to add an empty show step here. Press "yes" to insert an empty show step at the current step number. All following show steps will be moved up one number. After the empty step is added you can record a scene or time value there.

After editing, a show can be saved at the same or at a new location by pressing any number switch. The scene LED must be turned off. You can use this method to copy a show to another memory location by calling it for edit and then saving it without making any changes.

PREVIEW

Preview mode allows you to first see the name of a scene, preset, chase or show before calling it. With the "preview" LED lit, the display will show the page and number as well as the name of the item that is selected. The "go" switch is then used to call the item. For example, when calling a scene, press "scene" then select a scene number. The page, number and name will be displayed along with the message "Press go to call this scene". The "go" switch LED will be lit. The scene will not be called until you press the "go" switch. If however you press a "scene" LED that is already lit, the scene will turn off as in normal operation.

SCENE MASTERS

The 8 channel faders can also be used to call scenes. In this mode the faders allow manual control of the crossfading between scenes. To use the faders this way, the "masters" LED must be lit as well and the "scene" LED. Scenes 1 through 32 of the currently selected scene page can then be called using 4 banks of 8 faders.

To start a scene, first move the fader all the way to the bottom to reset it. The corresponding scene will be assigned to the fader as it is moved upwards. Any chases that are part of the scene will start at this time. Channels that are set to snap at the start of a fade will also move to the scene levels right away. Channels that are set to snap at the end of a fade will move to their scene levels when the fader reaches the top. All channels set to crossfade will follow the movement of the fader. Using the scene masters allows 8 scenes to be running at the same time provided they are controlling different channels. Starting a new scene that uses some of the same channels as a scene that is already active will steal those channels for the new scene.

NOTE: To use the faders as scene masters, the "masters" LED must be lit and the "scene" LED must be lit. The scene will be called from the current scene page that is shown in the page display. That scene will stay attached to that fader until that fader is reset (moving it to the bottom position). The scene will stay with that fader even if you change scene pages until the fader is reset.

MIDI

Show Designer 2D allows you to use MIDI to call scenes using a MIDI sequencer so that you can synchronize lighting to a MIDI performance. The scene page and number is encoded in a MIDI message that is sent to the MIDI output when a scene is selected using the number switches or the "go" switch. The "black" switch also sends a MIDI message allowing you to record a blackout or blackout restore. When that same MIDI message is returned to the MIDI input, that scene will be called. The MIDI channel can be set from the "menu".

USING THE DISK DRIVE

The disk drive is used for all memory backups and software updates. The computer port cannot be used for these functions with the disk drive installed. The disks that you read and write using the Show Designer 2D can also be used on your computer disk drive allowing you to make copies and download software updates from the factory website. Fixture profiles can only be loaded using the disk drive.

MEMORY BACKUP

Go to the menu function "save memory file", the message "Press enter to save file to disk" will appear on the top line of the display. The default file name will appear on the bottom line. You can use the data wheel or an external keyboard to enter a new file name. Insert a formatted disk in the drive and press enter. The message "File has been saved to disk" will appear when finished. It can take several minutes to write the file depending on how much memory has been used. The content of the entire memory is backed up including all menu settings, scenes, presets, chases and shows. The disk file is a binary file and will have the DOS file extension .sdm and is compatible with Windows as long as you adhere to Window's file naming rules. The file name can use up to 8 characters.

Note: This file type is different than the text file type used to back up the memory using the com port as described in the next chapter. The two file types are not interchangeable.

MEMORY RESTORE

With your memory backup disk inserted in the drive, go to the menu function "load memory file". The message "Select memory file, then press enter" will appear on the top line of the display. The name of the first Show Designer 2D memory file on the disk will appear on the bottom line of the display. Use the + or - switch or data wheel 1 to select the desired file if there is more than one memory file on the disk. Press "enter" to load the file. **Warning: the current memory will be overwritten.** It can take several minutes to load depending on the size of the file. The Show Designer 2D will reboot after the file has been successfully loaded.

SOFTWARE UPDATE

Insert a disk with the software update file on it. The file must have the name SD2Vxxx.txt (xxx is the version number). Software updates can be downloaded from the factory website. Go to the menu function "update software", then press enter. If the proper file name is found on the disk, the Show Designer 2D will go into update mode and start reading the file. The message "receiving new program" will appear in the display. It will take several minutes to complete the update. After the software is successfully updated the Show Designer 2D will reboot with the new version installed. If there are any errors an error message will appear and you will have to start over using the auto load method described in the next paragraph.

SOFTWARE UPDATE USING AUTO LOAD

The auto load method of updating the software forces the Show Designer 2D to load new software on power up. This can be necessary if there were problems trying to update the software using the menu function or if an update was interrupted by a power failure. The Show Designer 2D will automatically power up in auto load mode if the program was improperly installed of if there is no program installed.

The message “Rom empty, reload program” will appear in the display. You can also force it into auto load by holding down the menu and erase switches when powering up. The message “download new program” will appear in the display. You must insert a disk with the new software program before powering up and you must also first rename the new software file “autoload.txt”. The disk drive will automatically load any file with this name on power up.

FIXTURE PROFILES

Fixture profiles are small files that are available from elationlighting.com that contain detailed information about a lighting fixture such as the name and function of each of the channels as well as the name and DMX values of steps within a channel. Once loaded, a profile can be selected from the fixture list when choosing fixtures. Fixture profiles are most useful when using the data wheels to program lighting fixture channels. The display will be able to show the function and current setting for a channel. The wheels will be able to select from preprogrammed steps within a channel such as the colors on a color wheel. Fixture profiles can only be loaded using the disk drive.

NOTE: Fixture profile file names end with the file extension .sdf and cannot be more that 8 characters in length not including the extension.

Fixture profiles also contain “factory presets” which allow you to select colors, gobos or effects using the number switches instead of the channel wheels or the faders. These presets are accessible from 4 preset pages labeled “F1” through “F4”. These pages follow page 24 when using the page up or down switches.

USING THE COMPUTER PORT

If you do not have the disk drive option installed on your Show Designer 2D, the RS-232 port can be used to connect to a personal computer in order to do memory backups and software updates. You will need a serial lap link cable sometimes referred to as a null modem cable available at any computer store. A lap link cable is normally used to connect a laptop computer to a desktop computer or to connect 2 computers together. A standard RS-232 cable will not work. Connect the RS-232 port on Show Designer 2D to one of the serial “COM” ports on your PC. Some COM ports use a 25 pin connector and some use a 9 pin. Most lap link cables come with both types of connectors.

Once connected, you can use a PC running Windows to backup or restore the memory and also to update the software. This allows you to update your controller with the latest features by downloading new Show Designer 2D software from Elation’s web site.

Note: If you have the disk drive option installed, software updates and memory backups are only done with the disk drive and not the RS-232 port.

CONFIGURING WINDOWS

Windows comes with an accessory called Hyper Terminal that can communicate with Show Designer 2D via one the COM ports on your PC. Determine which of your COM ports is available and connect as described in the previous paragraph to the RS-232 port on Show Designer 2D. COM 1 is generally used for the mouse on your PC so you will probably be using COM 2 to connect to Show Designer 2D.

You must first configure Hyper Terminal to work with Show Designer 2D. Run Hyper Terminal by clicking on “Start” in Windows then “Programs” then “Accessories” then “Hyper Terminal”. If for some reason Hyper Terminal is not installed on your version of Windows, install it from your Windows CD. Go to the control panel, select Add/Remove Programs, select Windows Setup, and then select communications. Follow the instructions.

Once the Hyper Terminal folder is open, double click on “Hypertrm.exe” or “Hypertrm” which will start the Hyper Terminal program. You will be asked to choose a name and an icon. Name it Show Designer then pick any icon then click on OK. Go to the bottom of the next dialog box and choose “connect to” “Direct to COM 2”. Ignore the telephone number and other settings in this box then click OK. In the next dialog box, set bits per second to 19200, data bits to 8, parity to none, stop bits to 1, flow control to none, then click OK. You will now be running Hyper Terminal. One last item needs to be set by clicking on “File” in the upper left corner of the window, then “Properties”, then select the “settings” tab. From the settings tab click on the box that says “ASCII Setup”. From that dialog box make sure the box labeled “send line ends with line feeds” is checked, you can also leave the box labeled “wrap lines” checked but leave all of the other boxes unchecked. Click OK and you are done with setup. Close Hyper Terminal and you will be prompted to save this Hyper Terminal setup. Click yes to save it and you will return to the Hyper Terminal folder. There should now be a program in the folder labeled “Show Designer.ht” or “Show Designer”. You may want to make a shortcut on your desktop if you plan to use your PC with Show Designer 2D often. From this point on, whenever you communicate with Show Designer 2D using your PC, call this Show Designer Hyper Terminal configuration.

MEMORY BACKUP USING THE COMPUTER PORT

Once configured, you can use Hyper Terminal to back up the Show Designer 2D memory and save it on your hard disk. Connect to your PC as described in the previous paragraphs. Next call the version of Hyper Terminal that you created for Show Designer 2D. Click on “Transfer” on the top menu bar and select “Capture Text”. A dialog box will appear allowing you to select a folder and name for the backup file. Use a name like “SD2 backup1.txt”. Click “Start” and Hyper Terminal is now ready to receive the file from Show Designer 2D.

Next, go to the menu selection on the Show Designer 2D labeled “save memory file” and press the “enter” switch. The display will read, “Press enter to send memory file”. Press “enter” to start the transmission from Show Designer 2D. An encoded copy of the entire memory will be transmitted to your PC. A series of numbers will be displayed in the Hyper Terminal window as the file is being copied to your disk drive. The time needed to send the memory file will vary depending on the amount of memory currently in use. When the file is finished being sent, Show Designer 2D will return to its startup display and the numbers will stop scrolling in the Hyper Terminal window. You can either close Hyper Terminal or return to the “capture text” pull down menu and select “stop”, the file will automatically be saved.

Note: When creating additional memory backup files, always start with a new text file. Hyper Terminal will not write over an old file that has data in it but will add the new data to the file giving you multiple memory dumps in one file.

MEMORY RESTORE USING THE COMPUTER PORT

To copy a memory file from your PC back to Show Designer 2D, first go to the menu selection in Show Designer 2D labeled “load memory file”. Press “enter” and the display will read “Send memory file to Com port”. Show Designer 2D is now ready to receive the file from your PC.

Next call the version of Hyper Terminal that you created for Show Designer 2D. Click on “Transfer” on the top menu bar and select “Send Text File”. A dialog box will appear allowing you to select the Show Designer text file that you made when you backed up. Find the drive and folder where you created the file if it is not in the current window, select the file and click on “Open”. Hyper Terminal will begin to transmit the file. The Show Designer 2D display will read “receiving file”. After the file has been sent, Show Designer 2D will restart and show its startup display. If any errors have been detected, Show Designer 2D will prompt you to retry. Check your connections and try again. The length of time it takes to update the memory will vary depending on the amount of memory in use at the time it was recorded.

UPDATING THE SOFTWARE

The software that runs Show Designer 2D can be updated with new versions available from the Elation Lighting web site at www.elationprofessional.com . New software updates will include things such as new features. You can also download updated versions of this manual that will be in MS Word format.

To load the new software file into your Show Designer 2D, insert the floppy disk that contains the update, go to the Show Designer 2D menu selection labeled “update software”. Press “enter” and the display will read, “receiving new program”. It may take up to several minutes to complete the file transmission. Once the display reads “Show Designer 2 by Elation” followed by “Revision X.XX”, the update is complete.

The following is the list of "built in" lighting fixtures in the Show Designer 2D fixture library. Fixture profiles are available from elationlighting.com and offer more detailed fixture information than those in this list.

Generic Dimmer (1 Channel)
32 DMX Channels
Elation Color Spot 150s
Elation Color Spot 150r
Elation Color Spot 250
Elation Color Spot 575
Elation Color Wash 250
Elation Color Wash 575
Elation Barrel-Tech
Elation DP-619
Elation FS-150SCI
Elation Joy-150
Elation Joy 300
Elation MB-1500
Elation MDP-1219
Elation Mobile Scan
Elation Stage Color
Elation Techno Flash
Elation Vision 575
Elation Waterfall
Elation X-Calibur/SC

American DJ Color-250 DMX
American DJ Color-150/DMX
American DJ DP-DMX20 Dimmer Pack
American DJ PP-DMX20 Switch Pack
American DJ Marvel
American DJ Matrix Spot
American DJ Max
American DJ Mega-Strobe/DMX
American DJ Midi-Pak
American DJ Mighty Scan
American DJ Onyx II
American DJ Patend-1200
American DJ Pocket Scan
American DJ Radd
American DJ Rainbow-250
American DJ Rampage
American DJ S-1500/DMX
American DJ S-150/DMX
American DJ Snap Shot DMX
American DJ Sonic Beam
American DJ Spin-Out
American DJ Spiral Scan
American DJ Spiraltec II
American DJ Strobetec
American DJ Swivel Beam
American DJ Tempest II
American DJ Virtual Beam VR8
American DJ X-Cel
American DJ X-Treme

High End Color Pro
High End Cyberlight 20 Channel
High End Intellabeam 13 Channel
High End Studio Beam
High End Studio Color 250
High End Studio Color 575
High End Studio Spot 250
High End Studio Spot 575
High End Studio Spot CMY
High End Technobeam 18 Channel Mode
High End Technoray 14 Channel Mode
High End Technopro 12 Channel Mode
High End Trackspot

Martin Acrobat
Martin Imagescan Mode 2
Martin Mac 250 Mode 4
Martin Mac 300 Mode 4
Martin Mac 500 Mode 4
Martin Mac 600 Mode 4
Martin Mac 600 Nt Mode 4
Martin Mac 1200 Mode 4
Martin Mac 2000
Martin Minimac Profile
Martin Minimac Wash
Martin MX-1, MX-4
Martin P-812 7 Channel Mode
Martin P-518 Mode 3
Martin P-218 Mode 3
Martin Pal 1200 Mode 4
Martin Pal 1200FX Mode 4
Martin Pro 1220 CMYR Mode 4
Martin Pro 1220 XR Mode 4
Martin Pro 1220 RPR Mode 4
Martin Pro 918 Mode 4
Martin Punisher X250
Martin Robozap
Martin Robozap MSR 1200
Martin Robocolor II
Martin Robocolor MSD
Martin Robocolor Pro 400
Martin Roboscan 1004
Martin Roboscan XR1
Martin Roboscan XR2
Martin Roboscan XR3
Martin Roboscan XR4

Clay Paky Astroscan

Clay Paky Golden Scan
Clay Paky Golden Scan HPE
Clay Paky Mini Scan
Clay Paky Mini Scan HPE
Clay Paky Stage Color 300
Clay Paky Stage Color 1000
Clay Paky Stage Color 1200
Clay Paky Stage Light 300
Clay Paky Stage Scan
Clay Paky Stage Zoom
Clay Paky Super Scan Zoom 16 Channel Mode
Clay Paky Pin Scan

Coemar CF 1200 SP
Coemar CF 1200 Hard Edge
Coemar CF 1200 Hard Edge Compact
Coemar CF7 HE
Coemar CF7 WZ
Coemar Comet
Coemar Compactscan
Coemar Ispot 150
Coemar Nat TMM 1200
Coemar Nat Zoom 4000 20 Channel
Coemar Nat Zoom 2500 20 Channel
Coemar Panorama CYC Power
Coemar Panorama CYC Touring
Coemar PC 1000
Coemar PC 1200 HMI
Coemar Prowash
Coemar Prospot
Coemar Super CYC
Coemar TX 360

Vari*Lite VL5 And VL6
Vari*Lite AR500
Vari*Lite AR5 Low Res
Vari*Lite AR5 High Res
Varilite VLM

Microh Arena Profile Spot
Microh Arena Colour Wash

Genius Nexus
Genius Nexus 2
Genius Nexus 3
Genius Motor Spot
Genius Micromega
Genius Omega
Genius Omega 2
Genius Mizar
Genius Mizar 2
Genius Quasar
Genius Mammut

Genius Micro Scan
Genius Spectra
Genius Micro Roller
Genius Color Pro
Genius Color Eco
Genius Super Quark
Genius Motor Show
Genius Motor Color
Genius Next Scan
Genius Next Roller